TCCATGCTGCACTGTGTGGCCAACCCCATCCTCTACAACTTTCTCAGCCCGAGCTTCCGGGGCC
GACTGCTGAGCCTTGTGGTTCGTTACCTTCCCAAGGAGCAGGCCAGGGCAGCAGGTGGTCGTGC
CTCCTCTTCTTCTTCCACCCAGCACTCCATCATCATTACCAAAGAGGGCAGCCTGCCCGCTGCA
GCGGATCTCCACACCCACCCCATCCGAAACGTTCAGGCGTCCTCTCCGCCTCCAAACACCTCAC
CTACACTCTGCAATTCCGTAGCCAGCTAAGGTAGACTCTAGCTTCCTCCACCAATAAGAAAGTT
CAGAGGGGGATGCGAGAGGTCTGTGGGAGGGGGTGGGAAGGACTGGCTTGTTCAGGGCCAATTT
AAGTATATCAAAACGTTGCTGTGGGGAGAGGGAAACGGTTCGGGAAGGACAGAGAATGGATCTT
TCCTTGATAGTACACTATTTGTTTGGGTACTGATGTCTAAGGGAGCCACACCGGTGGGGCGTGG
GGGGTGGGGAAGCG (SEQ ID NO:1)

FIGURE 1

underlined = deleted in targeting construct

[ ]= sequence flanking Neo insert in targeting construct

[TCCATGCTGCACTGTGTGGCCAACCCCATCCTCTAC]<u>AACTTTCTCAGCCCGAGCTTCC</u>
<u>GGGGCCGACTGCTGAGCCTTGTGGTTCGTTACCTTCCCAAGGAGCAGGCCAGGGCAGCAG</u>
<u>GTGGTCGTGCCTCCTCTTC</u>[TTCTTCCACCCAGCACTCCATCATCATTACCAAAGAGGGC
AGCCTGCCCGCTGCAGCGGATCTCCACACCCACCCCATCCGAAACGTTCAGGCGTCCTCT
CCGCCTCCAAACACCTCACCTACACTCTGCAATTCCGTAGCCAGCTAAGGTAGACTCTAG
CTTCCTCCACCAATAAGAAAGTTCAGAGGGGGATGCGAGAGGTCTGTGGGAGGGGGTGGG
AAGGACTGGCTTGTTCAGGGCCAATTTAAGTATATCAAAACGTTGCTGTGGGGAGAGGGA
AACGGTTCGGGAAGGACAGAGAATGGATCTTTCCTTGATAGTACACTATTTGTTTGGGTA
CTGATGTCTAAGGGAGCCACACCGGTGGGGCGTGGGGGGTGGGGAAGCG]

FIGURE 2A

Gene Sequence Structure *

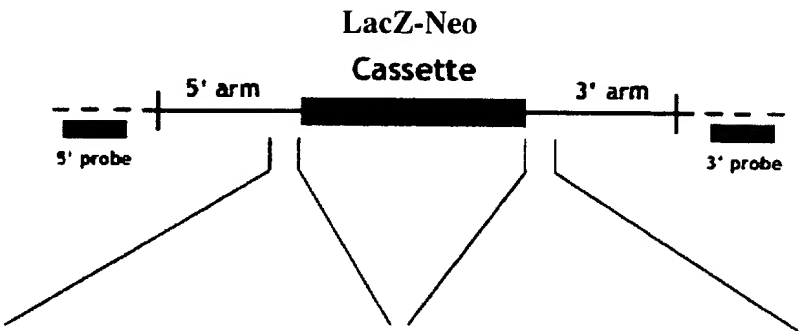37 bp   Sequence Deleted   137 bp

Size of partial cDNA: 526 bp

Targeting Vector* (genomic sequence)

Construct Number: 3267

LacZ-Neo
Cassette

5' arm

3' arm

5' probe

3' probe

Arm Length:
5': 2.5 kb
3': 1.8 kb

———— Targeting Vector
- - - - Endogenous Locus
* Not drawn to scale

5'>GGCGCCACTGCCTGTTGATGT
GGGCTTACATAGTTGTCTTTGCCA
TCTGCTGGCTGCCCTACCAAGTGA
CTATGCTGCTGCTCACTCTGCACG
GGACCCACATCTTCCTCCACTGTC
ACCTGGTTAACCTTCTCTACTTCT
TCTACGAAATCATCGACTGCTTTT
CCATGCTGCACTGTGTGGCCAACC
CCATCCTCTAC<3'
(SEQ ID NO:2)

5'>TTCTTCCACCCAGCACTCCAT
CATCATTACCAAAGAGGGCAGCCT
GCCCGCTGCAGCGGATCTCCACAC
CCACCCCATCCGAAACGTTCAGGC
GTCCTCTCCGCCTCCAAACACCTC
ACCTACACTCTGCAATTCTGTAGC
CAGCTAAGGTAGACTCTAGCTTCC
TCCACCAACAAGAAAGTTCAGAGG
GGGATGCGAGA<3'
(SEQ ID NO:3)

FIGURE 2B